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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,260	02/06/2006	Alexander Kraus	5942/87209	3060

22242 7590 10/13/2011

FITCH EVEN TABIN & FLANNERY
120 SOUTH LASALLE STREET
SUITE 1600
CHICAGO, IL 60603-3406

EXAMINER	
CHOI, LING SIU	

ART UNIT	PAPER NUMBER
1762	

MAIL DATE	DELIVERY MODE
10/13/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,260	KRAUS ET AL.	
	Examiner	Art Unit	
	LING-SIU CHOI	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 September 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-27* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-27* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/17/2010*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

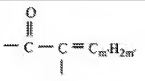
DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 09/17/2010 has been entered.

Claim Analysis

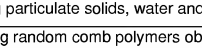
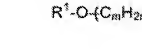
2. Summary of Claim 1:

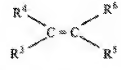
A suspension comprising an aqueous suspension of solids and a CCT dispersant comprising random comb polymers obtained by free-radical copolymerization according to catalytic chain transfer (CCT) method of		
A	vinylic poly(alkylene oxide) compound (A) of the general formula $R^1\text{-}O\text{-}\{C_mH_{2m}O\}_{n-1}\text{-}C_mH_{2m}\text{-}Z$	
	R^1	hydrogen, a $C_{1\text{-}20}$-alkyl radical, a cycloaliphatic $C_{5\text{-}20}$-cycloalkyl radical, a substituted or unsubstituted $C_{6\text{-}14}$-aryl radical,
	m	2 - 4,
	n	1 - 250,

	Z		
		Y	O or NR^2,
		R^2	hydrogen, a C_{1-12}-alkyl radical, a C_{6-14}-aryl radical, $-C_mH_{2m}-(O-C_mH_{2m})_{n-1}OR^1$,
		m'	1 – 4
		n'	0 - 2,
B	an ethylenically unsaturated monomer compound (B) of the general formula 		
	R^3	H, CH_3, COOH or a salt thereof, $COOR^7$ or $CONR^7R^7$,	
	R^4	H, a substituted or unsubstituted C_{6-14}-aryl radical,	
	R^5	H, CH_3, COOH or a salt thereof, $COOR^7$, $CONR^7R^7$, a substituted or unsubstituted aryl radical or OR^8, PO_3H_2, SO_3H, CONH-R_9,	
	R^6	H, CH_3 or CH_3COOR_7,	
	R^7	H, C_{1-12}-alkyl, C_{1-12}-hydroxyalkyl, C_{1-12}-alkylphosphate or phosphonate or a salt thereof, C_{1-12}--alkylsulfate or -sulfonate or a salt thereof, $C_mH_{2m}-(-O-C_mH_{2m}-)_{n-1}-OR^1$,	
	R^8	acetyl and	
	R^9	C_{1-12}-alkylphosphate or-phosphonate or a salt thereof, C_{1-12}-alkylsulfate or -sulfonate or a salt thereof,	
	R^3 and R^5 together optionally form -O-CO-O-,		
the CCT dispersant is in an amount effective for providing the suspension with better water reduction capacity than with a non-CCT dispersant used in the same amount and			

the CCT dispersant is a comb polymer having the same monomers as the non-CCT dispersant which is not obtained by a CCT method.

Summary of Claim 13:

A method for making an aqueous suspension comprising solids and a CCT dispersant, the method comprising mixing particulate solids, water and a CCT dispersant,			
the CCT dispersant comprising random comb polymers obtained by free-radical copolymerization according to catalytic chain transfer (CCT) method of			
A	vinylic poly(alkylene oxide) compound (A) of the general formula 		
	R^1	hydrogen, a C_{1-20}-alkyl radical, a cycloaliphatic C_{5-20}-cycloalkyl radical, a substituted or unsubstituted C_{6-14}-aryl radical,	
	m	2 - 4,	
	n	1 - 250,	
	Z		
		Y	O or NR^2,
		R^2	hydrogen, a C_{1-12}-alkyl radical, a C_{6-14}-aryl radical, $-C_mH_{2m}-(O-C_mH_{2m})_{n-1}OR^1$,
		m'	1 – 4
		n'	0 - 2,
B	an ethylenically unsaturated monomer compound (B) of the general formula		

		
	R^3	H, CH_3, COOH or a salt thereof, $COOR^7$ or $CONR^7R^7$,
	R^4	H, a substituted or unsubstituted C $_{6-14}$-aryl radical,
	R^5	H, CH_3, COOH or a salt thereof, $COOR^7$, $CONR^7R^7$, a substituted or unsubstituted aryl radical or OR^8, PO_3H_2, SO_3H, CONH-R_9,
	R^6	H, CH_3 or CH_3COOR_7,
	R^7	H, C $_{1-12}$-alkyl, C $_{1-12}$-hydroxyalkyl, C $_{1-12}$-alkylphosphate or phosphonate or a salt thereof, C $_{1-12}$--alkylsulfate or -sulfonate or a salt thereof, C_mH_{2m}-(-O - C_mH_{2m}-)$_{n-1}$-OR^1 ,
	R^8	acetyl and
	R^9	C $_{1-12}$-alkylphosphate or-phosphonate or a salt thereof, C $_{1-12}$-alkylsulfate or -sulfonate or a salt thereof,
	R^3 and R^5 together optionally form -O-CO-O-.	

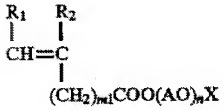
Claim Rejections - 35 USC § 102

3. **The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:**

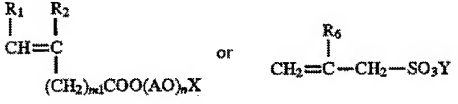
> **A person shall be entitled to a patent unless –**
>
> **(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.**

4. Claims 1-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamato et al. (US 5,707,445).

Yamato et al. disclose an admixture for concrete comprising a copolymer prepared by copolymerizing (A) **a polyalkylene glycol monoester monomer** having 110 to 300 mols of an oxyalkylene group(s) each having 2 to 3 carbon atoms,



with (B) **at least one monomer selected from among acrylic monomers, unsaturated dicarboxylic monomers and allylsulfonic monomers**,

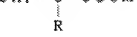


A1

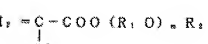
wherein the resulting concrete composition undergoes little change in the slump for a lengthened time (abstract). Attention is drawn to the Preparative Example 1, wherein a monomer A-1 and acrylic acid undergo a polymerization in the presence of ammonium persulfate and 2-mercaptoethanol in water to give a copolymer having a molecular weight of 22,000, which is used to form an admixture with concrete (abstract; Claims 1-4).

5. Claims 1-12 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Amaya et al. (EP 1 184 353 A1).

Amaya et al. disclose a concrete composition containing a dispersant and a concrete, the dispersant comprising a water-soluble amphoteric copolymer obtained by copolymerizing (A) a polyamide-polyamine of an alkylene oxide adduct thereof with (B) **(meth)acrylic acid** or an alkali metal, ammonium, or alkanolamine salt thereof



and (C) **a polyalkylene glycol ester of (meth)acrylic acid**



in an A/B/C weight ratio of (10-40)/(10-40)/(50-80) (abstract; claim 1). Thus, the present claims are anticipated by the disclosure of Amaya et al.

6. Claims 1-12 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeshi et al. (JP 2001002734).

Takeshi et al. disclose a polymer to stabilize cement, comprising at least (A) an unsaturated polyalkylene glycol-based monomer

and (B) an unsaturated carboxylic acid-based monomer,

(abstract). Thus, the present claims are anticipated by the disclosure of Takeshi et al.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Ma et al. (US 6,117,921).

Ma et al. disclose a graft copolymer dispersant and a method to make it, the dispersant having a backbone portion and at least one sidechain portion, wherein (A) both portions are prepared from ethylenically unsaturated monomers; (B) the sidearm portion is hydrophilic and the backbone portion is hydrophobic: **the sidearm portion** being derived from a non-ionic hydrophilic or water soluble monomer having the formula

$$CH_2=C(R_3)[C(O)OX_n(\mathbf{CH_2\,CH_2\,O})_m]\text{-}R_4$$

wherein n = 0 or 1; m = 1 to 100; X = an alkyl, aryl, or alkylaryl diradical $C_{1\text{-}9}$ connecting group; R_3 = H or CH_3 ; and R_4 = [H and $C_{1\text{-}4}$ alkyl groups]; the hydrophobic portion being prepared from at least one monomer having the following formulae:

$$CH_2= C(R_1)\, C(O)\, X(R_2)R_3$$

$$CH_2= CHO\, C(O)R_4$$

R_1 = [H and CH_3] ; X =[N and O]; when X = N, R_2 and R_3 = [H, substituted alkyl, substituted aryl, substituted alkylaryl, unsubstituted alkyl, unsubstituted aryl and unsubstituted alkylaryl groups] provided that either R_2 or R_3 contains at least one aryl or alkylaryl group; when X = O, R_2 does not exist and R_3 = [substituted aryl, substituted alkylaryl groups, unsubstituted aryl and unsubstituted alkylaryl groups]; and R_4 = [substituted aryl, substituted alkylaryl groups, unsubstituted aryl and unsubstituted alkylaryl groups] (claims 1-2 and 13). Ma et al. further disclose that diaquabis(borondifluorodiphenyl glyoximato) cobaltate (II), a catalytic chain transfer agent, is used in polymerizing the non-ionic hydrophilic monomer and the hydrophobic monomer, (col. 6, lines 48-67; Example 1). However, Ma et al. do not teach or fairly suggest the claimed suspension and the method to make it, wherein the suspension comprises, in particular, a dispersant obtained by the free-radical copolymerization of a specific vinylic poly(alkylene oxide) and a specific ethylenically unsaturated monomer according to catalytic chain transfer (CCT), wherein the dispersant is a comb polymer and has a better water reduction capacity than the corresponding dispersant obtained according to the non-CCT dispersant.

8.. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Ling-Siu Choi/

Primary Examiner, Art Unit 1762

October 01, 2011